



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/979,555	11/26/2001	Makoto Takagi	OHS-309	5042

7590 08/20/2003
Sherman & Shalloway
413 North Washington Street
Alexandria, VA 22314

EXAMINER

BUTTNER, DAVID J

ART UNIT	PAPER NUMBER
----------	--------------

1712

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/979,555

Applicant(s)

TAKAGI, MAKOTO

Examiner

David Buttner

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,12-15,18-21,34 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,12-15,18-21,34 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1712

The lined out references were not provided with an English explanation.

Claims 1-7, 12-15, 18-21, 34 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The "0.7 to 1.5" limitation is not fully explained in claim 1. "Amount ratio" is never defined nor is "content of it".

Claims 1-7, 12-15, 18-21, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kobayashi WO 00/12629 in view of Developments in Injection Molding.

The examiner relies on US 6,483,683 as a translation.

Kobayashi (Table 1) exemplifies compositions of PC, ABS, phosphate flame retardant, talc and PTFE. The apparent MW is about 20,000 and the wet heat MW retention is high.

The composition is injected molded (column 26, line 28). This corresponds to applicant's (A) material prior to being pulverized. The reference does not explicitly suggest recycling this material.

During injection molding, it is common practice to regranulate runners, sprues, faulty moldings etc. and recycle them back into the injection molding process (see the Injection Molding Text). In effect, this recycling would blend regranulated PC, ABS, phosphate, talc, and PTFE articles with virgin PC, ABS, phosphate, talc and PTFE.

It would have been obvious to recycle Kobayashi's faulty moldings, runners, sprues, used product returns etc. back into the virgin feed as a cost savings measure.

Note that the claims "article, which has been commercially used" is merely a product by process limitation. A pulverized material of a commercially used article would be indistinguishable from a pulverized sprue or runner of the same material. See MPEP 2113 regarding product by process limitations.

Claims 1-7, 12-15, 18-21, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kobayashi WO 00/12,629 Patent in view of the Developments in Injection Molding in further view of Nodera '142 or '114.

Nodera '142 (abstract; Table 1) and Nodera '114 (Table 1-1) both show PC, styrenic resin, phosphate compositions are recyclable. This further suggests recycling the very similar Kobayashi composition.

Claims 1-7, 12-15, 18-21, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Nodera '142 Patent in view of Developments in Injection Molding.

Nodera (Table 1) exemplifies injection-molded blends of PC, styrenic resin, phosphate etc. The blend is said to be moisture resistant due to the small decrease in impact strength after exposure to humidity. Although not identical to applicant's "wet heat retention ratio", it is analogous. If impact strength has little decrease, then the viscosity would also have little decrease after exposure to humidity. The MW of the PC used in the examples has a MW of 19,000 (column 16, line 52). This is close to that

Art Unit: 1712

used by applicant's examples (page 86 line 5). The composition is said to be recyclable. For all of these reasons, Nodera's composition is believed to inherently meet applicant's (A) material. The burden of proof shifts to applicant to show otherwise (MPEP 2112).

Nodera does not explicitly state adding his recycled composition to fresh virgin ingredients.

This is one method of "recycling" as shown by the injection molding text. It would have been obvious to recycle faulty moldings, used product returns, sprues, runners etc. back into the virgin feed as a cost savings measure.

Claims 1-7, 12-15, 18-21, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Nodera '114 Patent in view of the Developments in Injection Molding.

Nodera (Table 1-1) exemplifies injection-molded blends of PC, styrenic resin, phosphate, etc. The blend has a minor decrease in impact strength after exposure to humidity. Although not identical to applicant's "wet heat retention ratio", it is analogous. If impact strength has little decrease, then the viscosity would also have little decrease after exposure to humidity. The MW of the PC used in the examples has a MW of 19,000 (column 14, line 21). This is close to that used by applicant's examples (page 86, line 5). The composition is said to be recyclable. For all of these reasons, Nodera's composition is believed to inherently meet applicant's (A) material. The burden of proof shifts to applicant to show otherwise (MPEP 2112).

Nodera's composition does not explicitly state adding his recycled composition to fresh virgin ingredients.

This is one method of "recycling" as shown by the injection molding text. It would have been obvious to recycle faulty moldings, used product returns, sprues, runners etc. back into the virgin feed as a cost savings measure.

Applicant's arguments filed July 3, 2003 have been fully considered but they are not persuasive.

Applicant argues WO 00/12,629 does not qualify as prior art under 102(a) because its publication date is March 9, 2003.

This is not correct. The publication date for the reference is March 9, 2000. This is prior to applicant's earliest priority date.

The reference also qualifies under 102(b) as the one year time bar is measured from applicant's US or international filing date—not applicant's Japanese filing date (see MPEP 706.02 "Determining the Effective Filing Date" and MPEP 2133).

Applicant argues Nodera '142 and '114 do not teach a wet heat retention ratio of at least 60%.

The examiner has pointed out that Nodera performs a moisture resistance analogous to applicant's wet heat retention ratio. Nodera (column 18, line 11 of '142; column 15, line 40 of '114) tests color and impact strength before and after exposure to 90% humidity for 300 hours. It is shown that most of the impact strength and color is retained. Applicant's wet heat retention ratio measures viscosity change after exposure

to 100% humidity for 24 hours. These are analogous tests measuring resistance to humidity. If Nodera's impact strength does not deteriorate much under humidity, one would expect the viscosity (applicant's wet heat retention) not to deteriorate much under humidity.

Furthermore, applicant measures impact value retention after exposure to humidity. Applicant's data shows wet heat retention must be high if impact strength retention is high. This further supports the examiner's position that Nodera's compositions inherently have the required wet heat resistance. The burden of proof shifts to applicant to show otherwise.

Applicant argues Nodera does not suggest the 0.7 to 1.5 ranges.

When recycling used material back into the virgin feed, any ratio would be prima facie obvious. One of ordinary skill recognizes larger amounts of recycle saves money, but decreases quality. It is a simple matter of choice to balance the two competing factors.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 1712

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is (703) 308-2403. The examiner can normally be reached on weekdays from 10 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on (703) 308-2340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

DAVID J. BUTTNER
PRIMARY EXAMINER

D. Buttner/dh
August 18, 2003

